the goal of developing a live, **attenuated RSV vaccine**, we have now attempted to further **attenuate** ts-1 NG-1 by mutagenesis with 5-FU and 5-azacytidine. Four mutants that are phenotypically different from the ts-1 NG-1 parental virus were identified. Each of the four mutants was more restricted in replication in BALB/c mice compared with the ts-1 NG-1 parental virus. One of the ts-1 NG-1 derivatives, termed A-20-4, which showed the lowest (35 degree C) in vitro shutoff temperature and which was also completely restricted in replication in BALB/c mice, was selected for further evaluation in seronegative chimpanzees. A-20-4 did not cause rhinorrhea in chimpanzees but induced detectable titers of serum **RSV** neutralizing antibodies in 2 of 4 chimpanzees. Apparent complete protection to subsequent challenge with wild-type **RSV** was observed in each of the four chimpanzees previously immunized with A-20-4. The ts-1 NG-1 A-20-4 mutant thus represents a promising live **attenuated RSV vaccine** candidate.

1995

46/3,AB/9 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09749651 BIOSIS NO.: 199598204569
Progress toward the development of a live attenuated respiratory syncytial virus **(** RSV**)** vaccine.
AUTHOR: **Murphy Brian R** (a); Crowe James E Jr(a); Bui Phuong T(a); Elkins William R(a); Firestone Cai-Yen(a); Chanock Robert M(a); Lubeck Michael D ; Karron Ruth; Clements Mary Lou; Wright Peter F; Siber George R
AUTHOR ADDRESS: (a)Natl. Inst. Health, NIAID, Bethesda, MD 20892-0702**USA
JOURNAL: Journal of Cellular Biochemistry Supplement 0 (19A):p274 1995
CONFERENCE/MEETING: Keystone Symposium on Molecular Aspects of Viral Immunity Keystone, Colorado, USA January 16-23, 1995
ISSN: 0733-1959
RECORD TYPE: Citation
LANGUAGE: English
1995

46/3,AB/10 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09696672 BIOSIS NO.: 199598151590
Live attenuated vaccines **for** respiratory syncytial virus **and parainfluenza virus type 3.**
BOOK TITLE: Strategies for pediatric vaccines: **Conventional and molecular approaches**
AUTHOR: **Murphy Brian R** (a); Crowe James E Jr; Lubeck Michael D; Hsu Kuo-Hom Lee; Hall Susan L; Karron Ruth A; Clements Mary Lou; Wright Peter F; Belshe Robert B; Chanock Robert M
BOOK AUTHOR/EDITOR: Redfern D E: Ed
AUTHOR ADDRESS: (a)Respir. Viruses Sect., Lab. Infectious Diseases, National Inst. Allergy Infectious Diseases, Nat**USA
p173-178 1994
BOOK PUBLISHER: Ross Products Division, Abbott Laboratories, 625 Cleveland Avenue, Columbus, Ohio 43216, USA
CONFERENCE/MEETING: 104th Ross Conference on Pediatric Research San Diego, California, USA September 18-21, 1993
RECORD TYPE: Citation
LANGUAGE: English

1994

46/3,AB/11 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09400555 BIOSIS NO.: 199497408925
A further attenuated **derivative of a cold-passaged temperature-sensitive mutant of human** respiratory syncytial virus **retains immunogenicity and protective efficacy against wild-type challenge in seronegative chimpanzees.**
AUTHOR: Crowe James E Jr(a); Bui Phuong T; Davis Alan R; Chanock Robert M; **Murphy Brian R**
AUTHOR ADDRESS: (a)Respiratory Viruses Sect., Lab. Infectious Diseases, Natl. Inst. Allergy and Infectious Diseases**USA
JOURNAL: Vaccine 12 (9):p783-790 1994
ISSN: 0264-410X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A cold-passaged (cp), temperature-sensitive (ts) **RSV** mutant designated **RSV** cpts-248 (shut-off temperature 38 degree C), which possesses host-range mutations acquired during 52 passages at low temperature in bovine tissue culture and a ts phenotype introduced by subsequent chemical mutagenesis, was found previously to be **attenuated , immunogenic** , and protective against wild-type challenge in seronegative chimpanzees. We sought to introduce additional attenuating mutations such as small-plaque (sp) and ts mutations into **RSV** cpts-248 by chemical mutagenesis with 5-fluorouracil with the intent of obtaining cpts-248 derivatives that are more **attenuated** in mice or chimpanzees and that are more genetically stable following replication in vivo. Ten mutants of **RSV** cpts-248 which had acquired a sp phenotype or a second ts mutation were generated by chemical mutagenesis. Five cpts-248 derivatives which had acquired mutations that specified a 36 degree C shut-off temperature for plaque formation and one which had acquired only a sp phenotype were more restricted in replication in Balb/c mice than the cpts-248 parental strain. One mutant, designated **RSV** cpts-248/404 (shut-off temperature 36 degree C), was 100 times more restricted in replication in the nasal turbinates of mice and 1000 times more restricted in the nasopharynx of seronegative chimpanzees than its cpts-248 parent. The cpts-248/404 mutant was completely restricted in replication in the lower respiratory tract of chimpanzees even following direct intratracheal administration. The ts phenotype of the cpts-248/404 mutant was stable during replication in vivo in mice and chimpanzees. Chimpanzees immunized with cpts-248/404 were fully protected against upper respiratory tract disease and lower respiratory tract virus replication upon subsequent challenge with wild-type virus. The cpts-248/404 virus and related mutants exhibit many desirable characteristics which make them promising **vaccine** candidates.

1994

46/3,AB/12 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09355091 BIOSIS NO.: 199497363461
Satisfactorily attenuated **and protective mutants derived from a partially** attenuated **cold-passaged** respiratory syncytial virus **mutant by**

introduction of additional attenuating mutations during chemical mutagenesis.

AUTHOR: Crowe James E Jr(a); Bui Phuong T; London William T; Davis Alan R; Hung Paul P; Chanock Robert M; **Murphy Brian R**
AUTHOR ADDRESS: (a)Repiratory Virsues Section, Lab. Infectious Diseases, Natl. Inst. Allergy Infectious Diseases, N**USA

JOURNAL: Vaccine 12 (8):p691-699 1994
ISSN: 0264-410X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A cold-passaged **RSV** mutant, designated cp-**RSV** , while acquired host range mutations during 52 passages at low temperature in bovine tissue culture, was completely **attenuated** for seropositive adults and children but retained the capacity to cause upper respiratory disease in seronegative infants. We sought to introduce additional attenuating mutations, such as temperature-sensitive (t) and small-plaque (sp) mutations, into the cp-**RSV** mutant, which is a ts + virus, in order to generate a mutant which would be satisfactorily **attenuated** in seronegative infants and young children. Nine mutants of cp-**RSV** , which had acquired either the ts or small-plaque sp phenotype, were generated by chemical mutagenesis with 5-fluorouracil. The two ts mutants with the lowest in vitro shut-off temperature, namely the cpts-248 (38 degree C) and cpts-530 (39 degree C) mutants, were the most restricted of the nine cp-**RSV** mutant progeny tested for efficiency of replication in Balb/c mice. In seronegative chimpanzees, the cpts-248 mutant replicated fourfold less efficiently in the nasopharynx and caused significantly less rhinorrhoea than its cp-**RSV** parent. The cpts-248 mutant virus, like its cp-**RSV** parent, was 1000-fold restricted in replication in the trachea compared with wild-type **RSV** . Previously, another candidate **RSV** live **attenuated** **vaccine** strain, a mutant designated ts-1, exhibited some instability of its ts phenotype following replication in susceptible humans or chimpanzees. Hence, we sought cp-**RSV** ts progeny that exhibited a greater degree of stability of the ts phenotype than the prototype ts-1 mutant. The cpts-248 and cpts-530 progeny viruses exhibited a greater degree of stability of the ts phenotype in nude mice than the ts-1 virus, and in chimpanzees, the former mutant also exhibited a greater stability of its ts phenotype than ts-1. The cpts-248 mutant was **immunogenic** and induced a high level of resistance in chimpanzees to subsequent challenge with wild-type **RSV** . The cpts-248 mutant therefore exhibits a set of properties that make it a promising **vaccine** candidate. These desirable properties of cpts-248 suggest that the mutant should be tested in humans for its suitability in immunoprophylaxis.

1994

46/3,AB/13 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09230715 BIOSIS NO.: 199497239085
An update on approaches to the development of respiratory syncytial virus (RSV) **and parainfluenza virus type 3 (PIV3)** vaccines.
AUTHOR: **Murphy Brian R** (a); Hall Susan L; Kulkarni Arun B; Crowe James E Jr; **Collins Peter L** ; Connors Mark; Karron Ruth A; Chanock Robert M
AUTHOR ADDRESS: (a)Lab. Infect. Dis., Natl. Inst. Allergy Infect. Dis., Natl. Inst. Health, Bethesda, MD**USA
JOURNAL: Virus Research 32 (1):p13-36 1994
ISSN: 0168-1702

DOCUMENT TYPE: Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: **RSV** and PIV3 are responsible for about 30% of severe viral respiratory tract disease leading to hospitalization of infants and children. For this reason, there is a need to develop **vaccines** effective against these viruses. Since these viruses cause severe disease in early infancy, **vaccines** must be effective in the presence of maternal antibody. Currently, several strategies for immunization against these viruses are being explored including peptide **vaccines** , subunit **vaccines** , vectored **vaccines** (e.g., vaccinia-**RSV** or adenovirus-**RSV** **recombinants**), and live **attenuated** virus **vaccines** . The current status of these approaches is reviewed. In addition, the immunologic basis for the disease potentiation seen in vaccinees immunized with formalin-inactivated **RSV** during subsequent **RSV** infection is reviewed. The efficacy of immunization in the presence of maternal antibody is discussed. Much progress for a **RSV** and PIV3 **vaccine** has been made and successful immunization against each of these pathogens should be achieved within this decade.

1994

46/3,AB/14 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09081403 BIOSIS NO.: 199497089773
A comparison in chimpanzees of the immunogenicity and efficacy of live attenuated respiratory syncytial virus (RSV) **temperature-sensitive mutant** vaccines **and vaccinia virus** recombinants **that express the surface glycoproteins of** RSV.
AUTHOR: Crowe James E Jr(a); **Collins Peter L** ; London William T; Chanock Robert M; **Murphy Brian R**
AUTHOR ADDRESS: (a)Respiratory Viruses Section, Lab. Infectious Disease, Natl. Inst. Allergy Infectious Diseases, N**USA
JOURNAL: Vaccine 11 (14):p1395-1404 1993
ISSN: 0264-410X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: **Respiratory syncytial virus** (**RSV**) is the most common cause of viral bronchiolitis and pneumonia in children. The present study compares the level of attenuation, genetic stability and efficacy of three conditional-lethal temperature-sensitive (ts) mutants of the **RSV** A2 wild-type virus, designated ts-1, ts-1-NG1, and ts-4, in seronegative chimpanzees and also compares their efficacy with that of vaccinia virus **recombinants** that express the surface glycoproteins of **RSV** . Each of the ts mutants was highly **attenuated** in the lower respiratory tract, but still retained the capacity to induce significant rhinorrhoea. Each of the three ts mutants underwent partial reversion to a non-ts (ts+) phenotype during replication in a minority of the chimpanzees. The ts+ virus present in the upper respiratory tract of the chimpanzees did not spread to the lower respiratory tract and represented only a minority fraction of the virus present in the nasopharyngeal swab specimens. The ts mutants were highly **immunogenic** and provided resistance that effectively restricted **RSV** replication following virus challenge. In contrast, the vaccinia-**RSV** **recombinants** were less **immunogenic** . They protected the lungs of two of four chimpanzees challenged with **RSV** , but

failed to protect the upper respiratory tract. The chimpanzee can serve as a model for the rapid evaluation of further **attenuated** live **RSV vaccines** .

1993

46/3,AB/30 (Item 29 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06798795 BIOSIS NO.: 000088108234
IMMUNOSUPPRESSION OF THE ANTIBODY RESPONSE TO RESPIRATORY SYNCYTIAL VIRUS RSV **BY PREEXISTING SERUM ANTIBODIES PARTIAL PREVENTION BY TOPICAL INFECTION OF THE RESPIRATORY TRACT WITH VACCINIA VIRUS-** RSV RECOMBINANTS
AUTHOR: **MURPHY B R ; COLLINS P L ;** LAWRENCE L; ZUBAK J; CHANOCK R M; PRINCE G A
AUTHOR ADDRESS: LAB. INFECT. DIS., NATL. INST. ALLERGY INFECT. DIS., NATL. INST. HEALTH, BETHESDA, MD. 20892.
JOURNAL: J GEN VIROL 70 (8). 1989. 2185-2190. 1989
FULL JOURNAL NAME: Journal of General Virology
CODEN: JGVIA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Immunization strategies to prevent **respiratory syncytial virus** (**RSV**) disease will involve immunization of infants less than 2 months of age who possess maternally derived **RSV** antibodies. Vaccinia-**RSV recombinant** viruses are useful tools for defining parameters important in immunization against **RSV** and also are being considered as live virus **vaccines** for use in humans. Previous studies demonstrated that passively acquired **RSV** antibodies can suppress the immune response and the protective efficacy of vaccinia-**RSV recombinants** administered by the intradermal route. The present study demonstrates that the suppressive effects of passively acquired antibody on immunity induced by intradermally administered vaccinia-**RSV recombinants** in cotton rats can be partially overcome by administration of the **recombinants** by the intranasal route.

1989

46/3,AB/32 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

06078131 EMBASE No: 1995108615
Isolation anti characterization of a highly attenuated respiratory syncytial virus (RSV) vaccine **candidate by mutagenesis of the incompletely** attenuated RSV **A2 ts-1 NG-1 mutant virus**
Hsu K.-H.L.; Crowe Jr. J.E.; Lubeck M.D.; Davis A.R.; Hung P.P.; Chanock R.M.; **Murphy B.R.**
Wyeth-Ayerst Research, P.O. Box 8299,Philadelphia, PA 19101 United States
Vaccine (VACCINE) (United Kingdom) 1995, 13/5 (509-515)
CODEN: VACCD ISSN: 0264-410X
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Ts-1, a temperature sensitive (ts) mutant of **RSV** , was previously

derived from **RSV** A2 virus by mutagenesis with 5-fluorouracil (5-FU). Ts-1 was **attenuated** for adult volunteers and seropositive children but retained a low level of virulence in seronegative infant vaccinees as indicated by the occurrence of upper respiratory tract disease. Ts-1 NG-1, a more defective derivative of ts-1, was produced by mutagenesis of ts-1 with nitrosoguanidine. However, ts-1 NG-1 still retained a low level of virulence for the upper respiratory tract and showed some genetic instability in chimpanzees. With renewed interest in the goal of developing a live, **attenuated** **RSV** **vaccine** , we have now attempted to further **attenuate** ts-1 NG-1 by mutagenesis with 5-FU and 5-azacytidine. Four mutants that are phenotypically different from the ts-1 NG-1 parental virus were identified. Each of the four mutants was more restricted in replication in BALB/c mice compared with the ts-1 NG-1 parental virus. One of the ts-1 NG-1 derivatives, termed A-20-4, which showed the lowest (35degreeC) in vitro shutoff temperature and which was also completely restricted in replication in BALB/c mice, was selected for further evaluation in seronegative chimpanzees. A-20-4 did not cause rhinorrhea in chimpanzees but induced detectable titers of serum **RSV** neutralizing antibodies in 2 of 4 chimpanzees. Apparent complete protection to subsequent challenge with wild-type **RSV** was observed in each of the four chimpanzees previously immunized with A-20-4. The ts-1 NG-1 A-20-4 mutant thus represents a promising live **attenuated** **RSV** **vaccine** candidate.

46/3,AB/40 **(Item 9 from file: 73)**
DIALOG(R)File 73:EMBASE

03737603 EMBASE No: 1988187039
Current approaches to the development of vaccines **effective against parainfluenza and respiratory syncytial viruses**
Murphy B.R. ; Prince G.A.; **Collins P.L.** ; Van Wyke Coelingh K.; Olmsted R.A.; Spriggs M.K.; Parrott R.H.; Kim H.-W.; Brandt C.D.; Chanock R.M.
Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892 United States
Virus Research (VIRUS RES.) (Netherlands) 1988, 11/1 (1-15)
CODEN: VIRED ISSN: 0168-1702
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Vaccines against parainfluenza (PIV) and respiratory syncytial viruses (**RSV**) that are currently being developed include both live and subunit **vaccines** . Candidate live PIV **vaccines** that have been found to be **attenuated** and efficacious in rodents or primate models are (1) cold-adapted, temperature-sensitive mutants of PIV-type 3 that have been serially passaged at low temperature (20degreeC) in simian kidney tissue culture; (2) protease-activation mutants (PIV-1-Sendai), which have mutations that decrease the cleavability of their F glycoprotein by host cell protease; (3) an animal virus, bovine PIV-3 virus, which is antigenically related to the human PIV-3 virus, and (4) vaccinia **recombinant** viruses bearing **RSV** or PIV-3 glycoproteins. Subunit **RSV** and PIV-3 viruses are being produced and evaluated as immunogens. A major concern with these **vaccines** is the possibility of disease potentiation following virus infection as occurred previously with formalin-inactivated measles and **RSV** **vaccines** . Studies indicate that PIV-3 and **RSV** glycoprotein **vaccines** are **immunogenic** and efficacious in animals but insufficient data exist to estimate their capacity to potentiate disease. However, since a cotton rat model is available to detect potentiated disease resulting from infection of cotton rats previously immunized with formalin-inactivated **RSV** **vaccine** , it is now possible to systematically

evaluate new **vaccines** in experimental animals for disease potentiation before studies are initiated in humans. It is likely within the next several years that one or more of these PIV or **RSV** **vaccines** will be tested in humans for safety and immunogenicity.

46/3,AB/52 (Item 3 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0127688 DBA Accession No.: 92-00180
Rescue of synthetic analogs of respiratory- syncytial virus **genomic RNA and effect of truncations and mutations on the expression of foreign reporter gene- potential application in** recombinant vaccine **development**
AUTHOR: **Collins P L ;** Mink M A; Stec D S
CORPORATE SOURCE: National Institute of Allergy and Infectious Diseases, National Institutes of Health, Building 7, Room 100, Bethesda, MD 20892, USA.
JOURNAL: Proc.Natl.Acad.Sci.U.S.A. (88, 21, 9663-67) 1991
CODEN: PNASA6
LANGUAGE: English
ABSTRACT: The production of live **respiratory -syncytial virus** (**RSV**) from cDNA (which requires complementation by viral proteins) would provide a means for characterizing and producing **attenuated vaccine** strains. Towards this end, a cDNA was constructed which encoded **RSV** -CAT, an **RSV** viral RNA (vRNA) analog in which all of the viral translational open reading frames were deleted and replaced with the coding region of the bacterial chloramphenicol-acetyltransferase (CAT, EC-2.3.1.28) gene as a reporter for expression. **RSV** -CAT vRNA was synthesized in vitro from HgaI-linearized cDNA and transfected into **RSV** -infected 293 cells. The synthetic chimeric vRNAs were amplified, expressed and incorporated into virions. Amplification, expression and packaging were efficiently effected by a synthetic vRNA, **RSV** -Shorter, which contained only 105 nucleotides (nt) of the 15,222-nt **RSV** vRNA. The 105 nt of **RSV** -Shorter included (at the 3' end) the complete 44-nt leader region and adjacent 9-nt 1C gene start signal, and (at the 5' end) the 12-nt L-gene end signal fused to the last 40-nt of the 5' trailer region. (19 ref)
?

60/3,AB/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00334126
CHIMERIC GLYCOPROTEINS CONTAINING IMMUNOGENIC **SEGMENTS OF THE GLYCOPROTEINS OF HUMAN** RESPIRATORY SYNCYTIAL VIRUS.
CHIMARENGLYKOPROTEINE, ENTHALTEND IMMUNOGENE SEGMENTE DES HUMANEN RESPIRATORISCHEN SYNZYTIALVIRUS.
GLYCOPROTEINES CHIMERIQUES CONTENANT DES SEGMENTS IMMUNOGENIQUES DES GLYCOPROTEINES DU VIRUS SYNCYTIAL RESPIRATOIRE HUMAIN.
PATENT ASSIGNEE:
THE UPJOHN COMPANY, (230490), 301 Henrietta Street, Kalamazoo, Michigan 49001, (US), (applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)
INVENTOR:
WATHEN, Michael, 3183 St. Anthony Drive, Portage, MI 49002, (US)
LEGAL REPRESENTATIVE:
Perry, Robert Edward et al (41331), GILL JENNINGS & EVERY, Broadgate House, 7 Eldon Street, London EC2M 7LH, (GB)
PATENT (CC, No, Kind, Date): EP 396563 A1 901114 (Basic)
EP 396563 B1 930210
WO 8905823 890629
APPLICATION (CC, No, Date): EP 88909879 881031; WO 88US3784 881031
PRIORITY (CC, No, Date): US 137387 871223
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: C07K-013/00; C12N-015/00; A61K-039/155; C12N-007/00; C12N-001/20; C12N-001/18; C12N-005/00;
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	291
CLAIMS B	(German)	EPBBF1	234
CLAIMS B	(French)	EPBBF1	322
SPEC B	(English)	EPBBF1	11633
Total word count - document A			0
Total word count - document B			12480
Total word count - documents A + B			12480

60/3,AB/2 (Item 1 from file: 349)
DIALOG(R)File 349:PCT Fulltext

00246794
CHIMERIC GLYCOPROTEINS CONTAINING IMMUNOGENIC **SEGMENTS OF THE GLYCOPROTEINS OF HUMAN** RESPIRATORY SYNCYTIAL VIRUS
GLYCOPROTEINES CHIMERIQUES CONTENANT DES SEGMENTS IMMUNOGENIQUES DES GLYCOPROTEINES DU VIRUS SYNCYTIAL RESPIRATOIRE HUMAIN
Patent Applicant/Assignee:
THE UPJOHN COMPANY
WATHEN Michael
Inventor(s):
WATHEN Michael
Patent and Priority Information (Country, Number, Date):
Patent: WO 8905823 A1 19890629
Application: WO 88US3784 19881031 (PCT/WO US8803784)
Priority Application: US 87137387 19871223
Designated States: AT AU BE CH DE DK FI FR GB IT JP KR LU NL NO SE US

Publication Language: English
Fulltext Word Count: 15684

English Abstract
This invention encompasses DNA compositions encoding novel chimeric glycoproteins which are useful for preparing virus specific immune responses against human **respiratory syncytial virus** . The DNA compositions include structural genes coding for the glycoproteins and expression and replication plasmids containing the structural genes. Host cells transformed with the above DNA compositions, **vaccines** made from the glycoproteins and methods for protecting humans by inoculation with said **vaccines** are also part of this invention.

Japanese Abstract
Cette invention concerne des compositions d'ADN codant de nouvelles glycoproteines chimeriques qui sont utiles pour la preparation de reponses immunes specifiques contre le virus syncytial respiratoire humain. Les compositions d'ADN comprennent des genes structuraux codant pour les glycoproteines et des plasmides d'expression et de replication contenant les genes structuraux. Des cellules hotes transformees avec les compositions d'ADN decrites ci-dessus, des vaccins obtenus a partir des glycoproteines ainsi que des procedes de protection des etres humains par inoculation desdits vaccins sont egalement decrits dans la presente invention.

60/3,AB/3 (Item 2 from file: 349)
DIALOG(R)File 349:PCT Fulltext

00244169
RESPIRATORY SYNCYTIAL VIRUS: VACCINES **AND DIAGNOSTIC ASSAYS**
VIRUS SYNCYTIAL RESPIRATOIRE: VACCINS ET DOSAGES DE DIAGNOSTIC
Patent Applicant/Assignee:
PRAXIS BIOLOGICS INC
Inventor(s):
PARADISO Peter R
HILDRETH Stephen W
HU Branda T
MARTIN-GALLARDO Antonia
ARUMUGHAM Rasappa
Patent and Priority Information (Country, Number, Date):
Patent: WO 8902935 A1 19890406
Application: WO 88US3399 19880929 (PCT/WO US8803399)
Priority Application: US 87102180 19870929; US 88247017 19880920
Designated States: AT AU BE CH DE DK FR GB IT JP KR LU NL SE
Publication Language: English
Fulltext Word Count: 22085

English Abstract
Polypeptides, nucleotides, and compositions useful for preparing diagnostic reagents for and **vaccines** against human **Respiratory Syncytial Virus** are disclosed. The polypeptides include short polypeptides which are related to a neutralizing and fusion epitope of the **Respiratory Syncytial Virus** fusion protein or a neutralizing epitope of the G protein.

Japanese Abstract
Sont decrits des polypeptides, des nucleotides, et des compositions utiles pour preparer des reactifs de diagnostic du Virus Syncytial Respiratoire Humain et des vaccins contre ce dernier. Les polypeptides

comprennent des polypeptides courts se rapportant a un epitope de neutralisation et de fusion de la proteine de fusion du Virus Syncytial Respiratoire ou a un epitope de neutralisation de la proteine G.

60/3,AB/5 (Item 2 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02272861
Utility
EXPRESSION SYSTEM FOR **RSV** GLYCOPROTEIN F AND G
[For preparing specific immune responses against human respiratory syncytial virus]

PATENT NO.: 5,288,630
ISSUED: February 22, 1994 (19940222)
INVENTOR(s): Wathen, Michael W., Portage, MI (Michigan), US (United States of America)
ASSIGNEE(s): The Upjohn Company, (A U.S. Company or Corporation), Kalamazoo, MI (Michigan), US (United States of America) [Assignee Code(s): 87912]
APPL. NO.: 7-979,505
FILED: November 20, 1992 (19921120)

CROSS-REFERENCE TO RELATED APPLICATIONS

This Application is a divisional of U.S. Ser. No. 07-543,780, filed Jun. 20, 1990, now U.S. Pat. No. 5,194,595, which is a continuation of International Application PCT-US88-037, filed Oct. 31, 1988, which was a continuation of U.S. Ser. No. 07-137,387, filed Dec. 23, 1987, abandoned.

FULL TEXT: 1290 lines

ABSTRACT

This invention encompasses DNA compositions encoding novel chimeric glycoproteins which are useful for preparing virus specific immune responses against human **respiratory syncytial virus** . The DNA compositions include structural genes coding for the glycoproteins and expression and replication plasmids containing the structural genes. Host cells transformed with the above DNA compositions, **vaccines** made from the glycoproteins and methods for protecting humans by inoculation with said **vaccines** are also part of this invention.

60/3,AB/6 (Item 3 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02197487
Utility
RESPIRATORY SYNCYTIAL VIRUS : VACCINES
[Polypeptide]

PATENT NO.: 5,223,254
ISSUED: June 29, 1993 (19930629)
INVENTOR(s): Paradiso, Peter R., Pittsford, NY (New York), US (United States of America)
Hildreth, Stephen W., Rochester, NY (New York), US (United

States of America)
Hu, Branda T., Pittsford, NY (New York), US (United States of America)
Martin-Gallardo, Antonia, Pittsford, NY (New York), US (United States of America)
Arumugham, Rasappa, West Henrietta, NY (New York), US (United States of America)
ASSIGNEE(s): Praxis Biologics, Inc , (A U.S. Company or Corporation), Rochester, NY (New York), US (United States of America) [Assignee Code(s): 20015]
EXTRA INFO: Assignment transaction [Reassigned], recorded June 11, 1997 (19970611)
APPL. NO.: 7-247,017
FILED: September 20, 1988 (19880920)

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of application Ser. No. 07-102,180, filed Sep. 29, 1987, currently abandoned.

FULL TEXT: 2397 lines

ABSTRACT

Polypeptides, nucleotides, and compositions useful for preparing diagnostic reagents for and **vaccines** against human **Respiratory Syncytial Virus** are disclosed. The polypeptides include short polypeptides which are related to a neutralizing and fusion epitope of the **Respiratory Syncytial Virus** fusion protein or a neutralizing epitope of the G protein.

60/3,AB/7 (Item 4 from file: 654)
DIALOG(R)File 654:US PAT.FULL.

02165840
Utility
CHIMERIC GLYCOPROTEINS CONTAINING **IMMUNOGENIC** SEGMENTS OF THE GLYCOPROTEINS OF HUMAN **RESPIRATORY SYNCYTIAL VIRUS**
[**Vaccines** for protecting humans by inoculation against respiratory system infections]

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ABSTRACT

This invention encompasses DNA compositions encoding novel chimeric glycoproteins which are useful for preparing virus specific immune responses against human **respiratory syncytial virus** . The DNA compositions include structural genes coding for the glycoproteins and expression and replication plasmids containing the structural genes. Host cells transformed with the above DNA compositions, **vaccines** made from the glycoproteins and methods for protecting humans by inoculation with said **vaccines** are also part of this invention.
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